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Public Service Announcement

Scientists and Economists Alert!

Global Emergency

Compounded by the AIDS-like Features of SARS-CoV-2

Infection

Over a million people in the US are being infected with severe acute respiratory syndrome coronavirus type 2 (SARS-CoV-2) every day.

Originally named after the acute respiratory syndrome it can cause as a consequence of blood vessel damage in the lungs, SARS-CoV-2 is actually primarily a blood vessel virus that spreads through the airways. It causes a complex multisystem disease (1). It is airborne (2). It can persist in the body, and is detectable in body and brain tissue even at autopsy of "recovered" patients (3).

Each infection ages the body, causes damage to the blood vessels and the immune system, and affects organs including the heart, lungs, liver, kidneys, bones, etc. (4, 5, 6)

Each infection ages the brain. Specifically, it reduces gray matter and cognitive ability (7), and potentially IQ score (8). It increases the risk of psychiatric disorders (9). SARS-CoV-2 has also been identified as contributing to accelerated dementia (10).

The potential post-acute phase impacts of SARS-CoV-2 include long COVID, some manifestations of which are chronic conditions that can last a lifetime, including heart disease, diabetes, myalgic encephalomyelitis and dysautonomia (11).

The Economist has estimated excess deaths from the beginning of the Pandemic through May 2024 at up to 35 million people worldwide. (12)

In Addition, Many Scientists Are Now Issuing Warnings...

SARS-CoV-2 triggers a new airborne form of Acquired Immune Deficiency Syndrome (13, 14, 15) (some are proposing specific terms such as "CoV-AIDS").

This is not AIDS as we know it from human immunodeficiency virus (HIV) infection, it is a new type of acquired immunodeficiency syndrome with different deleterious effects on immune function (16, 17, 18, 19, 20, 21), but both resulting in increased vulnerability to infections (22). Immune system deficiency and other COVID properties also suggest a potential link to greater risk of cancers (23, 24, 25, 26, 27).

The "original" AIDS caused by HIV takes up to around 10 to 15 years to make its presence felt, with the initial infection usually barely noticed and often resembling the common cold or a flu-like disease until its damage manifests itself leading to death in the absence of treatments (28, 29).

With SARS-CoV-2, immunodeficiency develops in the weeks and months following infection. It involves reduction and functional exhaustion of T Cells (30), enhanced inhibition of MHC-I expression (31), downregulating CD19 expression in B cells (32) and other evidence of immune dysregulation (33, 34). In one study, the dysregulation persisted for 8 months following initial mild-to-moderate SARS-CoV-2 infection, the length of the study (35). There is no "cure" for any of the damage caused by SARS-CoV-2 including immune dysregulation.

Did You Know?

- Repeated infections are leading to prolonged immune dysregulation, and increase the risk of progressive disability and death.
- Long COVID is a multisystem disease with debilitating symptoms, which has had a profound impact on society and the global economy. In the USA, economists have estimated that long COVID will incur cumulative future costs of more than US$4 trillion (36, 37).
- The worldwide devastating economic consequences of this mass disabling event have been measured in terms of total work hours and GDP lost around the world (38).
- It theoretically only takes a single viral particle to initiate an infection, and most infections are initiated by very few viral particles (39).
- Despite current popular belief, the immune system is NOT a muscle, and does NOT benefit from being repeatedly challenged with disease-causing microbes. In fact, its finite resources are depleted with each new infection.
- Herd immunity is unattainable for a rapidly mutating, immune-disrupting virus, and there is no basis to believe that a vascular infection will evolve into the common cold.
- Continuing to ignore SARS-CoV-2 will not make it go away. Depriving the virus of publicity does not deprive it of its continuing lethal effects.
- SARS-CoV-2 is continuing to evolve and mutate – it is not running out of evolutionary space. It is not a cold or the flu, but primarily a blood vessel disease. It is damaging society as we know it.
- How many repeated infections can we expect young people to endure and survive? Even if they get only 1 infection each year, that's 10 infections in 10 school years. This is not compatible with health and a long life. Repeated infections can lead to long COVID and shortened lifespans.

How Do We Protect Ourselves, How Do We Protect Our Children, When Government Public Health Advice Has Failed?

- By reducing transmission so that R0 remains less than one (meaning that each person

infects less than one other), we can suppress and gradually eliminate the virus, targeting a safer return to pre-2020 normal.

- Handwashing is helpful, but it is not the main way to stop the spread of this airborne virus.
- Respirators can block 95% or more of virus particles through electrostatic action, and are therefore highly effective at reducing infection even if only one person in a conversation is wearing them. They are far more effective if all people are wearing them (40).
- Transmission can be reduced with HEPA filtration and ventilation of indoor air.
- The virus spreads more quickly in indoor settings, but also spreads outdoors.

- For medical facilities, it is essential to clean the air with ventilation and filtration and require universal high-quality masking (with N-95/ FFP3 respirators or better) to protect medical staff and patients.
- For workplaces, clean air will reduce transmission; and encouraging employees to test and stay home when infectious is essential. High-quality masking should be encouraged in the case of symptoms, a sick person at home, or any other suspicion that one could be carrying the virus. Remote work should be normalized and encouraged wherever possible.
- For entertainment venues, events should be held outdoors when possible; and if indoors, clean air is key to protecting audiences. Audiences should also be encouraged to wear respirators to avoid getting infected and infecting others. Digital streaming options should always be offered.
- For restaurants, an emphasis on outdoor dining will substantially reduce transmission. Patio service should be encouraged, and indoor dining areas should be well-ventilated with a high level of air-exchanges. Home or curbside delivery offers a safer alternative.
- For schools, clean air will reduce transmission; encouraging students to test and stay home when infectious is essential to preserving their health. Masking or remote learning should be initiated whenever a case is detected or the incidence in the general population sharply increases. A permanent hybrid model / digital option can accommodate children with disabilities or those who simply do better learning from home.
- Teachers and medical professionals may prefer to use transparent masks, or to wear HEPA-filtered headgear equipment that may be more universally tolerated/accepted.
- To track our progress, we need sustained wastewater and population-level testing.

With just 60-70 percent of people taking mitigation measures such as masking, testing and isolating when infected, we can dramatically reduce forward transmission of the virus. Even with very imperfect measures, as long as one infected person does not infect more than one person on average, the virus will eventually die out. The fewer people each person infects on average, the faster it will happen.

We still have a window of opportunity. Protecting ourselves and our families is in fact protecting

the economy and the continued orderly functioning of our society.

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